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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,701	11/14/2001	Herbert Gruber	H55-061 US	7489

21706 7590 09/16/2003

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EXAMINER

KUHNS, ALLAN R

ART UNIT PAPER NUMBER

1732

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/992,701

Applicant(s)

GRUBER ET AL.

Examiner

KUHNS

Group Art Unit

1732

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-13 is/are pending in the application.
- ☐ Of the above claim(s) 6-13 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-5 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☒ Claim(s) 1-13 are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
  - ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-5, drawn to an injection molding process, classified in class 264, subclass 50.

II. Claims 6-13, drawn to an injection assembly, classified in class 425, subclass 4R.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus or assembly as claimed, or as imputed from the process steps, can be used to practice another and materially different process such as one in which a polymer alone is shaped by injection molding.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art requiring divergent fields of search for the respective inventions, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mark A. Conklin on September 9, 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. The specification is nearly devoid of headings and a section entitled "Brief Description Of The Drawings" is particularly needed.

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim is indefinite, first of all, due to the use of "preferably" to set forth a range within a range. In addition, one of ordinary skill in the art would be unable to establish the metes and bounds of this claim in order to not infringe the claim since there is no baseline provided to establish "the usual maximum speed in the injection operation". Clarification is required.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu.

Xu discloses or suggests the basic claimed injection molding process for the injection into a mold of a single phase solution (column 2, lines 38-39) of a polymer and a propellant in a plasticizing cylinder of an injection molding machine, characterized in that the connection between the plasticizing cylinder and the mold is interrupted. It would have been obvious to one of ordinary skill in the art that the maximum speed of displacement (for example, in an axial direction) of the screw arranged in the plasticizing cylinder is limited because (1) there are physical limitations

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involving how fast injection molding equipment pieces can be moved, and (2) Xu achieves a goal of maintaining the single-phase solution.

Xu teaches a pressure within the range of claim 3 at column 11, lines 13-15, and it is submitted that the screw does not return to the accumulation position in Xu without the interruption required by claim 5.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Xu as applied to claims 1, 3 and 5 above, and further in view of Nishikawa et al. Also in a method of injection molding a polymer and a propellant or blowing agent, Nishikawa et al. teach at column 20, line 66 to column 21, line 3 the aspect of maintaining pressure in a plasticizing cylinder that is just sufficient to keep the blowing agent or propellant and polymer in solution. It would have been obvious to one of ordinary skill in the art to operate the process of Xu at such a pressure because Nishikawa et al. report that this achieves a goal of keeping the propellant or blowing agent dissolved in the polymer.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (703) 308-3462. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (703) 305-5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*Allan R. Kuhns*

ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732

9-10-03